

BARROWMORE

MODEL RAILWAY GROUP

"Modelling to a high standard amongst friends"



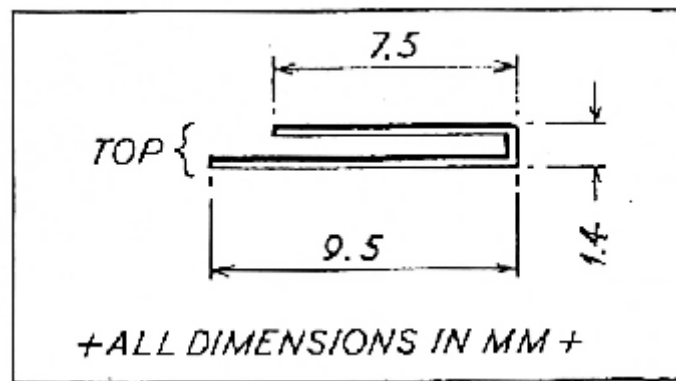
Workshop Notes: Brake Safety Loop Bending Jig

These notes describe another jig that uses narrow metal strip: a tool for making brake safety loops for 4mm-scale wagons fitted with four-shoe brake gear. Clasp brakes (sometimes used on fitted wagons) use a different design of brake gear safety loop which is more easily modelled than the type described here.

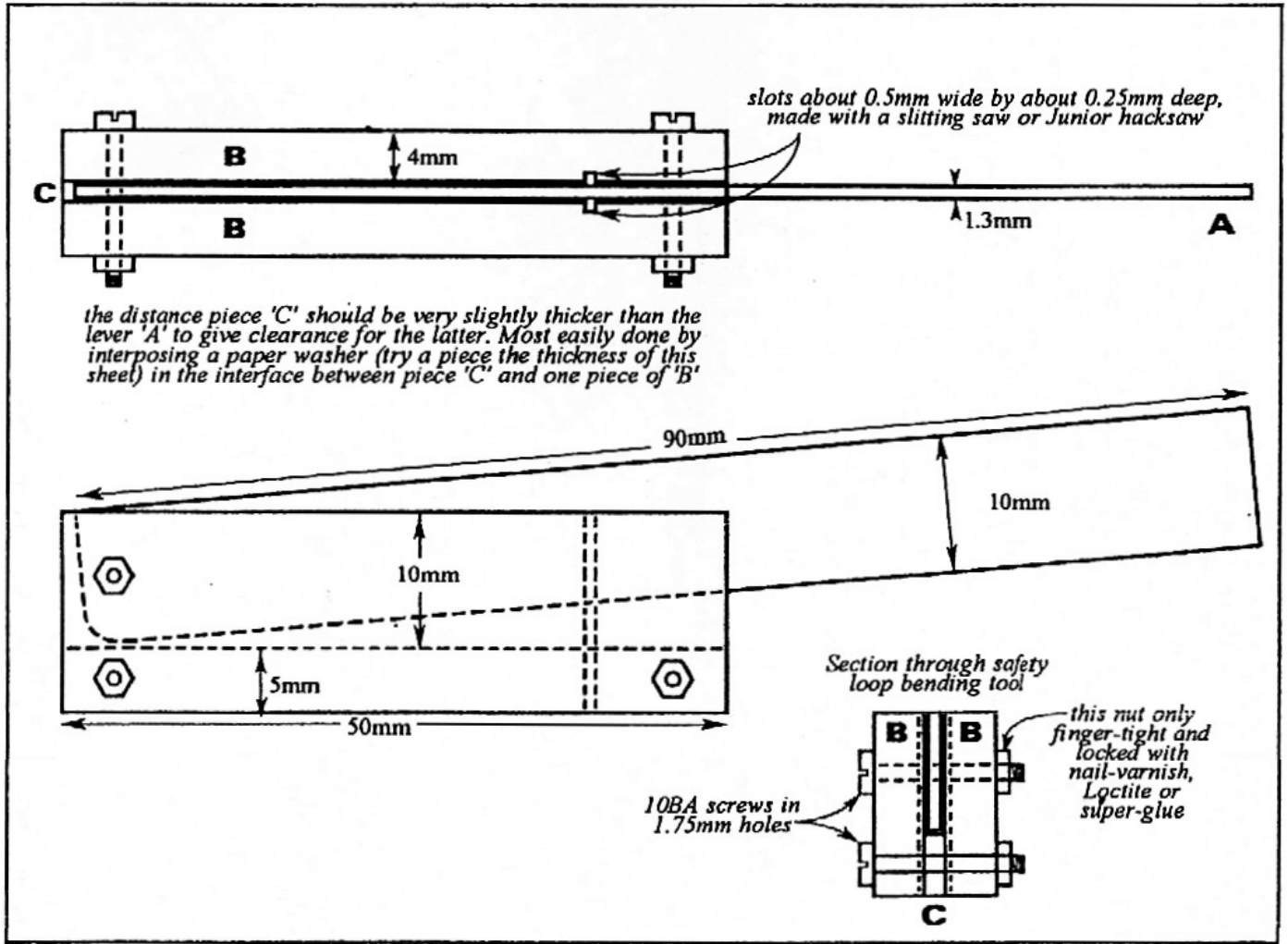
Most four-wheeled wagons built since the early days of the twentieth century and before the advent of disc brakes, will have had safety loops fitted as a means of avoiding derailing accidents as a result of parts of the brake gear coming loose. Of course, wagon kits have representations of these, moulded integrally with the push-rods: the problem is that they are grossly oversize – so that you lose the visual impression of ‘thinness’ of the components. So – cut off these monstrosities and replace them with the metal parts as described here. Allied to other improvements you can make to the kit brake-gear, this procedure vastly improves the appearance of model wagon under-frames.

The initial aim is bent-up metal strip shaped like this. The practical problem lies in making identical, close, bends, at the bottoms of the loops. This is where this jig comes in very useful.

[The dimensions in the diagram are for a B.R. 16-ton mineral wagon]

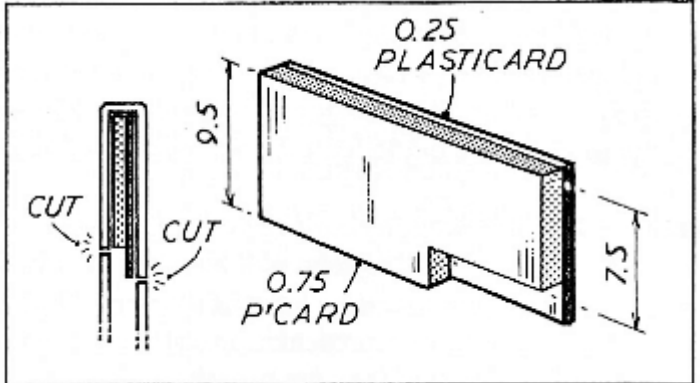


The construction of the jig should be clear from the diagram below. Mine was made from scrap steel, and the only critical dimensions are the thickness of the lever marked ‘A’ and the size of the slots in the side-pieces ‘B’. To operate: bend a length of your home-made strip (about 30mm or so long) in half and place it under the jig lever so that depressing the lever forces the strip down the grooves in parts ‘B’ and towards the bottom of the jig.



When you extract the loop from the jig, it will need the 'legs' cutting to length, and a 'foot' bending onto the foot of the longer leg, to help its gluing under the floor of the wagon. These operations are illustrated in the next sketch diagrams. Use a jig to aid in cutting to size. The 'foot' is bent at right angles to the 'leg' in order to make secure attachment to the underside of the wagon floor. Sizes quoted in this diagram are for B.R.16T mineral wagons: measuring the plastic loops before discarding them may make different dimensions desirable.

The loops should be tried in position in a 'dry run' before actually applying glue. I put a blob of a slow-acting adhesive like wood-working PVA or 'No more nails' where the foot is going to go. Position the foot, and leave to dry. The slowness of the glue makes alteration of placement easy – and final tweaking is also easy, since the loop is made from copper strip and will bend. But if you want to work faster, something like Araldite Rapid or even cyano-acrylate could be used.



This jig does make the replication of brake safety loops much easier

